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ABSTRACT

The assertion that American schools serve the political structure by ignoring the core part of their mission, the nurture of intellect, forms the basis of this critique. An analysis of the educational mission, the effect of teacher characteristics on student outcomes, and academically gifted student programs leads to the conclusion that education is an anti-intellectual institution that channels intellect away from challenging vested power interests in the political economy. Alternative views of the schools' mission based on ethical, political, and aesthetic premises are discussed. The call is made for developing curricula based on students' environment and stage of intellectual development to bridge the gap between the immediate world and universal human experience. A second conclusion is that the intellectual content and substance of a curriculum are as important as the intellectual process. (76 references) (LMI)

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Anti-intellectualism in U.S. Schools

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Anti-Intellectualism in U.S. Schools

> Intellect...is the critical, creative, and contemplative side of the mind...intellect examines, ponders, wonders, theorizes, criticizes, imagines...Intellect evaluates evaluations, and looks for the meanings of situations as a whole.
>
> (Hofstadter, 1963, p. 25)

Schools in the United States claim to have an academic mission; but despite this claim, they are neither particularly successful at--nor interested in--cultivating intellect. This criticism of schools is similar on the surface to the conservative view of contemporary schools: that they are not "accountable" and, as a result, fail to furnish the political economy (business and government) with the sorts of workers that it needs to stay "competitive."

But that critique is quite different from the one we plan to elaborate in this essay. In our view schools do not <u>fail</u> the political economy by poorly accomplishing their academic mission. Rather, they <u>serve</u> the political economy precisely because they ignore the core part of that mission, the nurture of intellect.

<u>Anti-intellectualism</u>

The distinction between the two critiques becomes clear when we compare what is typically implied by the term "rigor" with what we mean by the term "intellect." "Rigor" conveys a stringent adherence to standards. Such standards are narrowly defined and apparently value-free. But they are not value free at all. Instead, they are

the standards by which schools are to be evaluated and, consequently, held accountable.

Such standards have as their basis a set of skills and a body of knowledge--collectively referred to as "literacy"--that have an immediate economic use. Literacy, according to this view, entails competence in basic skills (such as reading and math computation) and technological skills. By contrast, the informed reasoning that we term "intellect," depends on a broader interpretation of literacy. This type of literacy is expansive, enabling individuals to define personal values within a cultural context.

Considering these differences between intellect and rigor, one might assume that academic rigor and intellect could be severed. By implication, the conservative agenda for school reform relies on this strategy; its documents never employ the word "intellect" in considering ways for government to hold schools accountable to business and industry. On closer inspection, however, one finds that intellect and academic rigor cannot be separated; academic learning of a <u>meaningful</u> sort, by its nature, enables rather than impedes the development of intellect. Conceived as disciplined study of the liberal arts and sciences, academic learning cultivates reason; and reason is inherently critical.

If intellect is by nature expansive and critical, then schools whose mission is to promote essential literacy for immediate, practical use would do well to ignore or even actively suppress intellect. According to this line of reasoning, such schools, and the educators who work in them, would be true to their mission if

they were to debase academic learning. We doubt, however, that any group of educators could very well take such a stance openly: it would mark them for the just scorn of the public. Common sense, after all, would suggest that schools are places for learning. Consequently, even educators who favored a curriculum dedicated to long-term servitude in the basic skills could not publicly disparage schools' academic mission. Instead, these educators would endorse such a mission while at the same time blaming others--children, parents, state agencies--for producing a climate that makes such a mission difficult to accomplish.

But do schooling and the political economy whose interests it serves (and to whom, therefore, it must be held accountable) function to suppress intellect? The answer to this question certainly depends as much on the empirical evidence as it does on the logic of the argument suggested above. Therefore, we direct attention to research on the nature of schooling as a way to evaluate the claims made thus far. Three types of research help us answer this question.

The first type of research derives from critical theories of sociology. These theories suggest that the mission of schools is to reproduce the economic and power relations of society in order to serve the interests of the ruling classes. By accepting this interpretation, one can explain schools' apparent interest in promoting academic learning: such learning functions as the medium through which the benefits of schooling (i.e., skills, knowledge, and credentials) are distributed differentially on the basis of

students' class, racial, and ethnic backgrounds. If schools were to function in this way, as these critical theories suggest, empirical studies would reveal differential patterns of school performance and differential benefits of schooling in accordance with students' background characteristics. This finding would not, in itself, demonstrate schools' failure to foster intellect. Instead, it might reveal their efforts to suppress the intellect of most students while cultivating the intellect of an elite few. Later in this essay we will consider this possibility and the research that addresses it.

A second type of research that bears on the question of schools' academic mission examines the academic characteristics of teachers. As the translators of the aims of schooling into daily practice, teachers have a determining influence on its outcomes. If, for example, teachers were to interpret the academic mission of schools as disciplined study of the liberal arts and sciences, they would do what was required to cultivate intellect. By contrast, if their interpretation were more narrow conceiving academics as the collection of essential skills and facts, they would emphasize mastery of some discrete body of knowledge to the ultimate detriment of intellect. The conditions that dictate teachers' collective interpretation, at least in part, are characteristics of teachers themselves. Their predisposition toward academic study doubtless has a substantial influence on their daily translation of its scope and method.

But even if research demonstrated that most teachers were not intellectuals and that schooling for most students did not cultivate the intellect, it would still be possible that schools valued intellect enough to cultivate it among an elitė few. The third type of research considers this possibility. It examines schools' approach to the education of academically gifted students, those whose aptitudes make them most amenable to an intellectual education.

If this research indicates that such students do in fact receive an education that nurtures their capacities for critical reasoning and inquiry, then we might conclude that schools do, at least in some cases, cultivate intellect. This finding would suggest that schooling in the United States is not fundamentally anti-intellectual in character and intent. In fact, it might indicate just the opposite: that schools so value intellect that they guard its supply, distributing it sparingly to those most deserving. If, however, the research shows that schools fail to cultivate intellect <u>even</u> among those students whose giftedness predisposes them to intellectual endeavors, then schools might properly be classified as anti-intellectual. Before drawing any conclusions about the intellectual character of U.S. schools, however, it is important to examine the three types of research that bear on the question.

<u>The Mission of Schools</u>

Although universal public schooling is usually justified on the basis of egalitarian aims, its benefits are hardly distributed equitably among students from all types of backgrounds. Schooling, in fact, seems to provide a mechanism for distinguishing among students, in part by identifying differences in their academic performance. More importantly, however, schooling sorts students into different instructional groups--roughly comparable to the social groupings of their parents--for the purpose of providing them with different types of education (see e.g., Oakes, 1985; Spring, 1976).

Bowles (1980, p. 125) explains this process:

> (1) schools have evolved in the United States not as part of a pursuit of equality, but rather to meet the needs of capitalist employers for a disciplined and skilled labor force, and to provide a mechanism of social control in the interests of political stability;
>
> (2) as the economic importance of skills and well-educated labor has grown, inequalities in the school system have become increasingly important in reproducing the class structure from one generation to the next;
>
> (3) the U.S. school system is pervaded by class inequalities, which have shown little sign of diminishing over the last half century; and
>
> (4) the evidently unequal control over school boards and other decision-making bodies in education does not provide a sufficient explanation of the persistence and pervasiveness of inequalities in the school system. Although the unequal distribution of political power serves to maintain inequalities in education, the origins of these inequalities are to be found outside the political sphere, in the class structure itself and in the class subcultures typical of capitalist societies.

This argument, though compelling, competes with another--perhaps equally compelling--argument: that schools sort students not primarily on the basis of their class and race backgrounds, but solely on the basis of their academic aptitudes. This alternative argument offers a seemingly just rationale for schools' practice of providing different students with preparation of varying types. By applying a professional technology, educators prepare students to assume suitable roles in the workforce. The schools' differentiated curriculum works fairly and efficiently to produce the stratified workforce that business, industry, and government require. Such an argument justifies inequalities in the distribution of the benefits of schooling by claiming that the disparate benefits are the incentives on which a meritocracy depends.

These reasons for sorting students might be <u>credible</u> and even <u>fair</u> under certain conditions. They would be credible if schools could, in fact, identify children's aptitudes accurately and if childhood aptitude were a reasonable predictor of adult success. They would be fair if the varying occupational roles for which students were prepared had more or less equal status or, at least, if all students of equal ability had equal access to the most prestigious roles. A review of the relevant literature, however, suggests that none of these conditions applies.

<u>Judgments about students' academic aptitudes</u>. First, research shows that educators frequently make incorrect judgments about students' academic aptitudes. This research (see e,g, Good & Brophy, 1987; High & Udall, 1983; Ysseldyke & Algozzine, 1982)

indicates that teachers tend to overestimate the academic capabilities of attractive, neatly dressed children from middle class backgrounds and underestimate the capabilities of other types of children: unattractive, poorly dressed children or children from lower class and minority-group backgrounds. Even when educators base their judgments on measures of aptitude or achievement that purport to be objective, they may not be able to identify real differences among students. According to Oakes (1985, p. 10),

> differences that appear to be substantial according to test results may, in fact, be relatively minor given the universe of knowledge or skill the test purports to measure ... the differences in actual (not measured) ... achievement, then, may be relatively quite small. And yet we are willing to judge a student's level of achievement and, consequently, determine the kind of education he or she is provided on the basis of these test scores.

Childhood aptitude and adult success. A second body of research that helps us evaluate the meritocratic argument provides evidence about the relationship between childhood aptitude and adult success. According to this research, aptitude alone does not predict adult success. Rather, aptitude has some influence on the amount of schooling an individual obtains, and the amount of schooling has a considerable influence on status and earnings. Jencks and his associates (1972) found that the strongest correlation between schooling and earnings was not that between childhood IQ and earnings, but that between years in school and earnings.

Another indication of the weak association between academic aptitude and occupational success is the considerable overlap in the

IQ scores of individuals from occupational groups as different in status as lawyer and cashier. Roe's (1956) research, for example, showed that IQs among lawyers ranged from 95 to 160 whereas IQs among cashiers ranged from 85 to 155. Clearly, variables other than IQ are operating to determine which individuals become lawyers and which become cashiers.

Differential reward for adults. A third body of research provides findings about the rewards of different occupations. A review of this research allows us to determine the fairness of schools' sorting practices. If the research shows that sorting results in a division of labor in which the various occupational roles are rewarded equally, then sorting practices--even if not wholly accurate--might be said to be fair.

The research, however, shows just the opposite trend. Not only is there a large difference in the remuneration provided to different types of workers, but the differences appear to be increasing in magnitude (see e.g., Leontief, 1982; Thurow, 1987). According to Apple (1987, p. 64),

> It is estimated that in 1985 a poor family was at least 5 percent less well off than in 1981, while a middle-class family was 14 percent better off. A rich family showed a 30 percent gain in its already large advantage. These figures, even if taken by themselves, indicate a marked redistribution of income and benefits from the poor to the rich. They are made even more significant by the fact that the middle class itself is actually shrinking as the numbers at the extremes grow. We have more and more a "double peaked" economic distribution as the number of well-to-do and poor increase.

Even considering these findings, sorting might be construed as fair (i.e., as meritocratic) if it afforded individuals with equal measured abilities equal access to the most highly rewarded occupations. Nevertheless, the research that addresses this question shows the reverse trend. Individuals with equal levels of education and similar social class backgrounds, but differing levels of IQ, are likely to attain similar levels of economic reward. By contrast, individuals with equal adult IQ but differing SES and levels of education are unlikely to attain similar rewards (Bowles & Gintis, 1973; 1976). According to Olneck and Crouse (1979, p. 24), "the vast preponderance of inequality in schooling, occupational status, and earnings has no relationship to differences in measured cognitive ability."

Inequality in the benefits provided to equally capable--but culturally different--individuals is demonstrated dramatically by a comparison of the incomes of black and white college graduates (Althauser, Spivack, & Amsel, 1975). These individuals were matched on the basis of their GPA, family SES, and the selectivity of the college that they attended. Even considering these similarities among the students in the two groups, their average incomes differed markedly. Race alone appeared to have an important influence on the economic success of these equally capable individuals.

In summary, we find that the research simply does not support the meritocratic rationale for schools' practice of sorting students. Instead, it seems to provide clear evidence that schools sort students for the purpose of recreating in each generation the

economic stratification of the previous generation. Although individual students may use their educational attainment as a way to escape the economic lot of their parents, the majority of students do not find that schooling offers a very promising avenue of social mobility.

The alternative to the meritocratic argument. Given this evidence, what might we conclude is the real purpose of the academic curriculum? Critical theory offers a reasonable answer. Proponents of this line of inquiry suggest that the purpose of the academic curriculum is to transmit the culture, knowledge, and prerogatives that enable dominant groups in the political economy to make their views of the world acceptable to virtually everyone and, thereby, to insure their continued domination (Apple, 1982). The process by which schools promote this ideological hegemony of dominant groups results in what critical theorists term, "cultural reproduction" (see e.g., Bourdieu & Passeron, 1977).

According to this view, cultural reproduction is made possible because schools provide the arena for students from different class backgrounds to engage in conflicts over academic benefits (such as grades, honors, and credentials) that are symbolic of class conflicts over economic and political benefits (see e.g., Bordieu & Passeron, 1977, 1979). This symbolic struggle distinguishes those who are academically successful from those who are academically unsuccessful, a process that reinforces and legitimates the competitive principles of capitalism. At the same time, the process shows students of all class backgrounds that certain ways of speaking and

acting (i.e., certain types of cultural capital) are more likely than others to influence the outcome of conflicts over academic benefits.

Schools, however, not only provide the site for symbolic class conflicts, they also help to create the basis for such conflicts by legitimizing certain types of knowledge and discrediting other types of knowledge (Apple, 1979). These processes occur overtly in the determination of what constitutes school knowledge. According to Apple (1979, p. 45),

> the problem of educational knowledge, of what is taught in schools, has to be considered as a form of the larger distribution of goods and services in a society. It is not merely an analytic problem (what shall be construed as knowledge?), nor simply a technical one (how do we organize and store knowledge so that children may have access to it and "master" it?), nor, finally, is it purely a psychological problem (how do we get students to learn "x"?). Rather, the study of educational knowledge is a study in ideology, the investigation of what is considered legitimate knowledge ... by specific social groups and classes, in specific institutions, at specific historical moments.

This view suggests that certain types of knowledge acquire value because they are included in the adopted curriculum; but knowledge of particular types also acquires value because of the role it plays in promoting the goals of the "hidden curriculum." Through the hidden curriculum, students learn patterns of behavior that implement certain class-related expectations. These patterns of behavior distinguish students who are compliant and receptive to academic learning (and therefore likely to succeed) from those who are non-compliant and unreceptive to academic learning (and likely to fail). In addition to the seemingly more objective differences

in levels of academic achievement, these noncognitive differences among students serve as another basis for schools' practice of sorting students into different instructional groups.

Since, as we have seen, schools exist primarily to sort students according to their background characteristics, they have a vested interest in seeing that a large percentage of students do not acquire academic competence, let alone develop intellect. Teachers may, however, work to counter this mission. Evidence of teachers' intellectualism would demonstrate their capacity to take on such a project and might, in fact, indicate their role in promoting school outcomes that subvert--rather than support--the cultural reproduction that schooling intends. Research about the intellectual characteristics of teachers is, therefore, important to our understanding of the ways in which schools promote or suppress the development of intellect.

The Intellectualism of Teachers

Even though some scholars make efforts to engage practicing teachers in active processes of inquiry (see e.g., Glickman, 1990), teachers rarely seem to act like intellectuals. One indication of this characteristic of teachers is their relatively low performance on measures of academic competence. Another indication is their generally limited interest in scholarly activities.

Teachers' academic ability. Several studies (e.g., Schlechty & Vance, 1981; Vance & Schlecty, 1982; Weaver, 1978, 1979) document the low standardized test scores of prospective teachers. These

studies indicate that high school seniors and college students who intend to major in education exhibit less academic promise than those who intend to major in other subjects. Additionally, these studies show that the recent rate of decline in the scores of prospective teachers exceeds the rate of decline in the scores of other college students. By comparison with the scores of students majoring in other fields, the Graduate Record Examination (GRE) scores of prospective teachers are quite low and continue to drop. Prospective teachers' scores rank lower than those of prospective nurses, biologists, chemists, aeronautical engineers, sociologists, political scientists, and public administrators.

In addition, there appears to be a negative correlation between teachers' academic ability and their tenure as teachers. Research comparing those teachers who stay in teaching and those who leave (see e.g., Schlechty and Vance, 1981; Vance & Schlecty, 1982) indicates that academically talented teachers are much more likely than less talented ones to leave the classroom. According to Levin (1970), many academically capable individuals give up teaching in order to pursue careers that more generously reward their talents. Levin's interpretation blames the poor economic rewards of teaching for the outflow of talented teachers, but one might also blame the anti-intellectual culture of schools. After all, the de-skilling of teaching (see e.g., Apple, 1987) is as likely to be a cause of the outflow of talented teachers as it is to be a consequence of it.

We need to be cautious, however, in using this evidence alone to judge teachers' intellectualism. Academic competence is not the

only condition for the exercise of intellect. We know, for example, that many academically talented individuals use their talents to pursue practical rather than scholarly occupations (see e.g., Hofstadter, 1963; Katchadourian & Boli, 1985). Therefore, it might also be the case that some less talented individuals choose to engage in scholarship rather than in other sorts of work. Public school teaching might, according to this logic, provide such individuals with the opportunity to pursue their academic interests.

Considering this possibility, it makes sense to look for research that examines the academic interests of teachers. There is no body of research, however, that directly addresses this question; but related research of two types enables us to infer some answers. One type of related research evaluates the course-taking of prospective teachers; and another type considers teachers' reading habits and preferences.

Teachers' academic interests. Research that evaluates the types of college courses that prospective teachers complete provides an imperfect reflection of the academic interests of such individuals. Most college programs include particular sequences of required courses, and many programs leave little room for students to choose electives. In spite of these conditions, however, we suspect that individuals who have compelling academic interests would be likely to promote those interests by taking higher-level courses in areas of interest; and we also suspect that individuals who complete few higher-level courses in any field probably have limited interest in academic scholarship.

A recent content-analysis of college transcripts provides the basis for comparing the course-taking of prospective teachers with that of other college students (Galambos, Cornett, & Spitler, 1985). This study found that prospective teachers took fewer liberal arts courses than did their counterparts in other arts and sciences majors. In addition, the teachers took fewer upper division courses in subjects other than pedagogy. According to the authors, "teachers, as compared to arts and sciences graduates, take fewer hours in mathematics, English, physics, chemistry, economics, history, political sciences, sociology, other social sciences, foreign languages, philosophy, and other humanities" (Galambos et al., 1985, p. 79). These patterns appear to indicate that prospective teachers do not make a special effort during their college years to pursue advanced study in fields other than pedagogy.

These findings address the question of teachers' academic interests quite indirectly; and, perhaps, they better describe the nature of curricula in teacher education than they do the interests of teachers. Another body of related research, however, provides direct evidence about teachers' interests. This research considers the reading habits and preferences of teachers.

For several reasons, measures of teachers' reading are appropriate indicators of their scholarly interests. First, reading is, by its nature, an intellectual act, requiring the reader to reflect on what is written and construct meaning from it (see e.g., Friere & Macedo, 1987). Readers tend, therefore, to be more reflective and more critical than nonreaders. Second, reading provides access to

content that is available nowhere else. Since text is such an efficient means of storing ideas, it is the medium most often used for that purpose. People who are concerned with ideas (i.e., those with academic interests) must frequently encounter text in order to compare and contast their ideas with those of others. Finally, reading provides entry to the intellectual forum in which scholarly dialog takes place. As a consequence, those who read widely in a field are more likely than others to make a significant contribution to that field.

Taking these features of reading into account, we believe we are justified in considering the frequent reading of literature in an academic field as a necessary (if not sufficient) condition for scholarship. Moreover, we find that the types of books and periodicals that a person reads provide evidence of the nature and intensity of that person's academic interests. With these premises in mind, we turn to the research on teachers' reading habits and preferences.

Studies of teachers' reading show two consistent patterns. First, they show that teachers do not read very much. Duffey (1973), for example, found that--on average--teachers read 3.2 books during the year preceding his study. He also found that approximately 11% of the teachers that he surveyed had not read a single book during that year (Duffey, 1974). In another study, however, teachers seemed to read a bit more: 8.5 books per year (Roeder, 1968 cited in Ilika, 1974). This amount of reading was not much greater than the amount done by other middle class individuals, who

read--on average--8 books per year. Using a different method of measuring the quantity of teachers' reading, Vieth (1981) found that 34% of the teachers in her sample spent less than one hour per day reading.

The second pattern that this research reveals is teachers' overwhelming preference for popular rather than scholarly or professional literature. According to Duffey (1974), nearly 69% of the teachers in his sample who were reading a book at the time of the survey were reading a popular book. Of those who were reading about education, most were reading books intended for the general public.

Teachers' journal reading reflects similar trends. Cogan and Anderson (1977), for example, concluded that teachers spent very little time reading professional journals. A survey conducted by Koballa (1987) showed that middle school teachers of life science most often selected practical rather than theoretical journals about science or science teaching. In fact, many of these teachers ranked Science World as one of the two journals they found most helpful. This finding disturbed the researcher: Science World is a journal targeted for middle school students, not for middle school teachers (Koballa, 1987). By contrast, only four percent of the teachers ranked Scientific American as one of the two journals they found most useful.

The research about teachers' reading is illustrative, if not definitive. It seems to suggest that, in general, teachers do not have well-developed academic interests. Coupled with research about teachers' academic aptitude, this research shows that most teachers

do not act like intellectuals. As a result, they probably also do not consider the predominant aims of schools to be inconsistent with their personal views of the world. Consequently, teachers are likely to support--not subvert--these aims.

This reasoning does not, however, provide sufficient evidence to permit us to conclude that schools (and the teachers who work in them) are anti-intellectual. As we have suggested earlier, it might be possible for schools to have elitist--but still intellectual--aims. They might, for example, demonstrate a high regard for intellectual work by allowing only a few capable students to engage in it. Consequently, to advance our argument, we need to evaluate the evidence about the nature of education for these most talented--often called "gifted"--students.

The Education of Academically Gifted Students

The basic rationale for gifted education is that some children's aptitudes for scholarship or art are so extraordinary that such children cannot be adequately educated through ordinary methods. It seems, therefore, that schools should make special efforts to cultivate these students' intellectual talents, but the case is otherwise. Programs for gifted students often devalue scholarly and creative activities. In fact, activities in such programs are generally <u>irrelevant</u> to the students' intellectual achievement; instead, programs inculcate social behaviors that reflect middle-class norms.

Many gifted programs, for example, focus on counseling able students or developing their social skills through activities such as leadership training and small-group interaction. In the name of improving gifted students' creativity, many programs forego substantial academic content and, instead, teach problem-solving skills in isolation from any particular academic content. These "skills" are easily acquired and applicable only to well-structured problems; they are, in consequence, of doubtful merit.

By exaggerating the emotional and social risks of strategies like acceleration and early college attendance, educators frequently dissuade students and parents from arranging intellectually challenging programs. Furthermore, most gifted students do not have access to the few extant programs that would best suit their aptitudes and interests. Such programs are seldom found in public schools; they are typically found in the expensive private schools that serve a different elite--the families of the wealthy.

As a consequence, some of the most intellectually precocious students in the public schools remain as unprepared as other students to engage in scholarly or artistic work that requires concentrated study and dedication to ideas. Instead, they are better prepared to assume the role that best suits the vested economic interests of the wealthy, the role of intelligent careerist. In this role they are capable of responding efficiently and pragmatically to work-related problems but unable, or at least disinclined, to examine the broad social, economic, and political context in which the problems are set.

Questionable features of gifted programs. Gifted programs have four features that undermine their capacity to develop intellect. First, they emphasize problem-solving skills, typically even in isolation from academic content; second, they promote enrichment over acceleration; third, they train bright students to identify with the norms of the power elite (cf. Mills, 1959); and finally, they exaggerate the emotional dangers of academically challenging work.

Gifted programs emphasize "problem-solving skills" to the detriment of intellect. In part, this emphasis comes from the mistaken belief that, since gifted students are intelligent, they should fill a leading role in solving society's "critical problems." The modern world view is that solving such problems entails primarily technical expertise, rather than thoughtful interpretation.

In our society, the inventor-entrepreneur is valued over the theoretical scientist (Hofstadter, 1963). Powerful business interests prize research more for its economic than its theoretical implications (Trumpbour, 1989): having ideas about how to get something done is highly valued in most enterprises. Therefore, many gifted programs set out to teach students techniques for solving problems with ingenuity, so that as adults they will be effective technicians, managers, and leaders. Ironically, in many gifted education programs, instruction in problem-solving is applied to trivial material. Inquiry-training (Suchman, 1975), brainstorming (Osborn, 1963), synectics (Gordon, 1961), and many of

the other game-like activities designed to teach reasoning and creative thinking exemplify this type of instruction.

Problem-solving activities are often part of the enrichment curriculum, which most gifted educators prefer to the alternative, acceleration. Supporters of enrichment assume that students' achievement will improve if they have broader, rather than more rapidly paced, instruction. Research clearly shows that this premise is <u>false</u> (e.g., Daurio, 1979). Nonetheless, the use of enrichment persists.

It persists despite the fact that the major objection to acceleration--that it causes social and emotional maladjustment--is <u>also</u> unsupported by research (e.g., Kulik & Kulik, 1984). The refusal to provide more rapid instruction to those who can obviously benefit from it is puzzling. In fact, it may suggest that the practice (if not the intent) of gifted programs is anti-intellectual.

Enrichment often consists of short thematic units, which, for example, may teach creative writing, research methods, library skills, or skills of self-presentation. These units--typically conducted as small-group or individual activities--usually fail to constitute a legitimate course of study. In a sense, the enrichment "curriculum" is a series of unrelated workshops. Perhaps this shortcoming results from the view that bright students need something extra, not something more challenging. As a consequence of this view, schools usually schedule enrichment classes only once

or twice a week and, through that arrangement, provide the extra attention gifted students presumably need.

The Childrens' Academy, described by Fetterman (1988), typifies enrichment programs. A resource program that gifted students attend one day a week, it offers such courses as "Money Makers," "Build a Better Mousetrap," "Weather in 3D," "Shipwrecked," "Sleuthing with Sherlock," "Blood and Guts," and "Reading Between the Lines: Magic, Myths, and Morals." At the end of each day, teachers provide an affective-domain-skills-session to develop students' group speaking and listening skills as well as other "socialization skills." Some parents are concerned about all of the "fun and games" (p. 42), but the children enjoy the program.

The responses of both parents and children are legitimate. Enrichment programs such as this one make learning fun; most children would enjoy the activities. For one thing, enrichment classes involve students more actively than most other classes. For another, they are usually student-centered and informally structured. Despite these admirable qualities, however, part of the reason that enrichment classes are enjoyable is that they are not very demanding; in general they are more entertaining than regular classrooms.

Enrichment rewards children just for being gifted. Other students envy the gifted students their participation in enrichment programs. But precisely because enrichment presents no real intellectual challenge that might justify other students' exclusion, such programs imply that gifted students deserve special privileges.

As a result, critics often complain that gifted programs are elitist because they separate gifted students from others in order to provide them with special privileges. Curiously, acceleration, a strategy educators consistently reject, would avoid this effect.

Critics believe that separating gifted students from peers of the same age produces negative social and emotional consequences. Advocates for special programs counter that gifted students need the chance to interact with each other, allegedly because such interaction allows gifted children to discover that many other children are as bright as they and share their interests.

Seldom do gifted educators argue for the need to provide separate programs principally as a way to offer rapid-paced academic instruction. Instead, they regard separate classes for gifted students as a safe haven, an environment essential for the students' emotional well-being. About the Children's Academy program described above, one student comments: "Here it's okay, you enjoy it--at the regular school you have to tough it out," (Fetterman, 1988, pg. 43).

The need for a safe haven is a principal unexamined assumption in gifted education. Very little evidence, however, warrants the assumption; after all, gifted students come predominantly from stable, middle-class homes. They are seldom "at-risk." Gifted educators fail to grasp the injustice of providing a safe haven to those who do not need it, while denying it to those who do.

Even the physical facilities in many gifted programs suggest privilege. Fetterman (1988), for example, mentions that the gifted

seminar rooms have couches rather than desks. Computers, materials for science experiments, and instructional games are often found in greater abundance in enrichment classrooms than in other classrooms. This objection might be more difficult to sustain if these special facilities were used on behalf of the intellectual development of gifted students, but they are not. Instead, the facilities are a variety of conspicuous consumption. In our culture, this lavish expense for no purpose tends to validate a group's entitlement to special privileges (cf. Veblen, 1899).

The proliferation of enrichment programs is due in part to an exaggeration of the emotional risks associated with demanding course work. There is, however, reason to believe that educators and parents in the U.S. overestimate the risks of academic work. In response, for example, to reports of relatively high levels of academic achievement in Japan, U.S. educators often point out that such high achievement is won at high cost, increased suicides among Japanese students. This argument persists despite the fact that suicide is more prevalent among American youth than among Japanese youth (Barrett, 1990).

The preponderance of research on gifted students' social and emotional development shows that they are at least as well-adjusted and mature as other students (Pendarvis, Howley, & Howley, 1990). Nevertheless, educators, including teachers of gifted students, express grave concerns about these children's mental health. Although parents often share these concerns, they do not perceive academic challenge as particularly threatening. In fact, parents of

the gifted are the object of considerable criticism by educators when they press for even very limited accommodations to their children's intellectual aptitude.

Underachievement as an effect of anti-intellectualism. Whereas some parents of gifted students want their children to engage in intellectually challenging work, schools function to inculcate normative behavior. They exert considerable pressure on all students to conform to such norms (Etzioni, 1961). Most often, the norms seem to involve anti-intellectual attitudes and dispositions (cf. Coleman, 1961; Garman, 1986; Pendarvis et al., 1990; Wiener, 1950; Waller, 1932). Such norms may explain the relatively low achievement of students and adults with extraordinarily high IQ scores.

This "disappointing" (Feldman, 1984) level of achievement among highly gifted students has been attributed to various causes, including (1) the failure of IQ tests to measure important aspects of intelligence; (2) personality problems in gifted individuals; and, in recent years, to (3) the schools' "commendable" emphasis on attitudes and skills--such as creativity--that are not even measured by achievement tests. The final point suggests that achievement level as conventionally measured is an unimportant educational outcome; a view that may be anti-intellectual in itself.

Feldman (1984) analyzed the achievement of gifted men who participated in Terman's longitudinal study. He concluded that there was a significant difference between the intellectual achievement of these men and that of men in the general population.

According to Feldman, high IQ scores apparently gave this group advantages in income and in professional achievement.

Nevertheless, Feldman noted that such accomplishments did not represent works of "genius." Feldman expected that there would be a considerable difference between the attainment of highly and moderately gifted men. Although there was some difference between these groups, it was not great. Even highly gifted adults--with childhood IQ scores of 180 and above--were not so renowned as Terman and his colleagues predicted.

Feldman (1984) took these results to indicate that IQ tests are not valid measures of aptitude. In an earlier essay, however, Feldman (1979) himself showed that the manifestation of superlative achievement was more than a matter of measured aptitude; instead, it resulted from the fortuitous coincidence of aptitude, culture, and nurture (Feldman, 1979). Thus, another explanation of the apparent "underachievement" of the highly gifted is their conformity to anti-intellectual norms imposed by schools.

Underachievement among bright high-school students in the U.S. seems to be increasing. According to Barrett (1990), recent studies show that even the best-educated students compare unfavorably with foreign students, at least in math and science. When compared with students in Japan, England, Sweden, Scotland, Hungary, and a number of other countries, American students score very low on achievement tests. Schooling seems to contribute to Americans' relatively poor achievement. The longer American students remain in school, the greater become the gaps between their achievement and that of

students from other countries. For example, Barrett notes that 15 American students were among the top 100 first-graders from several countries; but that only one American student was among the top 100 fifth-grade students.

These differences would be predictable if they occurred only in math. In comparison to students from other countries, far fewer American students take advanced mathematics classes. The differences, however, are more widespread. Declines in verbal SAT scores in the last decade suggest that the problem is not limited to quantitative disciplines.

Despite the fact that--as a group--the highly gifted seem to achieve less well than might be expected, many gifted individuals do make significant contributions in academic, professional, and artistic fields. Some gifted individuals, however, may underachieve, or appear to underachieve, in rebellion against prevailing values. William Sidis, one of the most famous "failures" in the literature on gifted education, may belong to this category. Despite his extraordinary academic ability (e.g., he was admitted to Harvard at age nine), Sidis insisted on obscurity. However, Sidis seems to have been actively, if quietly, engaged in a variety of intellectual works. The most important of these was a critical manuscript on the influence of Native American concepts of government on the colonials who drew up the U.S. Constitution (Johansen, 1989).

Lack of access to programs that foster intellect. Both the questionable features of gifted programs and the way in which

schools structure the underachievement of their most talented students--topics of the preceding sections--are related to the anti-intellectual functions of public schooling in the United States. Gifted programs in the public schools put little emphasis on the nurture of intellect. Moreover, the anti-intellectual norms of public schools block the development of intellect generally, with obvious effect among very talented students. In short, the public schools offer little access to programs that foster intellect.

Those programs are reserved for another elite: the children of the wealthy. Private preparatory schools and ivy league colleges are the most intellectually challenging schools in the country. These schools, however, almost exclusively enroll students whose family interests are those of the ruling class (Dormhoff, 1983). Even these schools value conspicuous consumption and status more than intellectual accomplishment (Trumpbour, 1989). They attempt to cultivate a technocratic elite that supports rather than challenges the status quo (Hobsbawm, 1973; Katchadourian & Boli, 1985; Veblen, 1899). According to Hobsbawm (1973), however, intellectuals are in a position to change the status quo. Consequently, even the most academically challenging programs--wherever they are found--must carefully control the uses to which intellect is put.

Nurturing Intellect

Substantial evidence suggests that, as an institution, education reproduces, and perhaps extends, social and economic inequality. Moreover, three aspects provide views of education as

an anti-intellectual enterprise: its mission, the characteristics of teachers, and its programs for the most academically able students.

This evidence suggests that elementary and secondary education in contemporary America pursues neither equality nor excellence. For us, the key element missing from the experience of schooling--and from other institutions of mass culture as well--is care for intellect. Such care involves attention to the thinking subject, the minds of students, and, equally important, our own minds as those that care for students. It is not sufficient for schools to concentrate on any particular set of "skills," for skills merely operate on some object. Nurture of intellect allows individuals to understand and, what is more, to interpret the world. Only a mind attuned through long practice to integrating facts and ideas, to assessing hypothetical realities, and to striving for exact expression is capable of interpretation.

Interpretation involves critique, and critique of whatever sort implies a direction for change. For this reason, nurture of the intellect also entails the disposition to critique the world, largely in order to change it. The point is that change requires different interpretations, and the avenues of mass culture provide too few.

Perhaps the evolution of communication and control (i.e., the ethos of information) in the postindustrial world makes interpretation more difficult. If so, then the crisis of education is part of a much wider, and more serious, cultural crisis (Bell,

1973, 1976). Whatever the case, resolution of the crisis is not amenable to fiat, and the discussion that follows does not comprise a set of "reforms" to be imposed on schools. In fact, it is doubtful if any other institution in contemporary society has authority sufficient to redirect education in the ways that we imagine to be necessary.

Hope may, however, lie in the individual and organizational exceptions to the general trend. Schooling, after all, is a purposive institution, made by humans to accomplish certain aims. Control of the institution is contested ground, and the interests that control particular schools (and classrooms) in part determine the character, if not the ultimate aims, of schooling as an institution.

What Should Schools Be For?

If intellect serves to guide interpretation, critique, and change, then it may well threaten the vested interests of power. Too wide an effort to nurture intellect is, therefore, a potential threat to such interests. We conclude that, as an institution, education serves to channel intellect to less threatening ends.

The previous discussion provided examples of this process as it applied to gifted children. This one example also illustrates the "microphysics" of educational power (cf. Foucault, 1979, on prisons). The example shows how institutional power bends intellect to certain purposes. The power is applied by functionaries of the institution (teachers and administrators) who translate

institutional aims into particular practices. In this case, analysis of the practices demonstrates the contradictions of their premises. In short, the development of exceptional talent is supported in rhetoric and suppressed in practice.

The major premise of education as an institution, however, is that schools are an arm of the nation state. The following discussion first considers this premise, and then elaborates three alternative premises more in keeping with our notion that nurture of intellect must become a major educational aim.

Education as an arm of the nation state. As an institutional phenomenon, education in the modern world is an arm of the nation state (e.g., Boli, Ramirez, & Meyer, 1985; Deaton & McNamara, 1984; DeYoung, 1989; Howley, 1991; Meyer, Tyack, Nagel, & Gordon, 1979). In the United States, the machinery of the institution applies an apparently value-free technology of improvement and management to the supervision of students, fitting their growth to the national interest.

The intent served by this role for education is to colonize students' mental functions in certain ways. Schools, for example, serve to manage and develop "human resources" and "human capital," and inculcate predetermined values of national interest (e.g., Deaton & McNamara, 1984). As an arm of the state, the institution of education treats children as sites for the development, in the national interest, of a variety of useful skills (Howley, 1991). Policymakers overtly express the hope that all children will become effective and efficient instruments of economic production. In

reality, education is another policy tool to allocate poverty and affluence (cf. Tomaskovic-Devey, 1987).

The call to improve "American competitiveness"--which figured prominently in every major reform report of the 1980s--was, for example, a call to defend national economic security. Few policymakers, scholars, or citizens questioned if the agenda were worthy or feasible. Legislatures around the nation, however, responded quickly, often echoing the theme of national competitiveness as a matter of state or local security.

Carried to its logical conclusion in the current political economy, however, competitiveness would tend to destroy national cohesion and increase group inequality (see Chubb & Moe, 1990 for a contrasting interpretation). Such outcomes would result from the invariable competition among states, districts, and individual schools for acclaim and resources. Because education as an institution legitimates the inequalities of the political economy, competition among schools would intensify--rather than off-set--inequalities among schools and their students. As a results, some schools and some students might be better able to respond to the supposed needs of the nation, whereas the majority would be less able to do so.

The alarm sounded by reformers was principally rhetorical. It served more to rally national effort on behalf of vested business interests at a time of international business stress, than to change education in significant ways (Spring, 1987). Two related points explain why business took such an interest in reforming education.

First, the growth of trans-national corporations posed challenges to national political economies (Jacobs, 1984). With American interests in trans-national corporations at an all-time high, American business itself became the cause for much of the comparative disadvantage of the U.S. political economy. Second, by shifting the burden to education, business interests in the 1980s deflected the attention of politicians and bureaucrats from their own excesses and problems (DeYoung, 1989; Spring, 1987).

Time and again, reform reports delineated what business interests claimed to desire in employees--better thinking skills for problem-solving and better attitudes toward teamwork (e.g., Committee for Economic Development, 1985; Etzioni, 1985; Perelman, 1990) as priorities for the nation's schools. In the effort to rally a populace skeptical, at least since the Vietnam era, of the abuse of national power, the business community, working through the prerogatives of a conservative political regime, exerted tighter control over the machinery of education (Aronowitz & Giroux, 1985).

Alternative premises. We are concerned that education become something other than a state mechanism for dominating the thought and behavior of citizens; namely, an institution that nurtures the intellect of individuals, regardless of their race, class, sex, or ethnic origins. We are not, however, laying out a plan for reform and restructuring. The present dimensions of the institution took shape for 100 years. The changes we envision will take equally long, if, in fact, the political economy can tolerate them. Our principal aim in this discussion is to present overlooked issues and

alternatives for educators, especially those concerned to reconcile talent development and social justice. Our view of schools' mission relies on three premises that accord the curriculum a different role from the one it presently serves.

The first premise claims that a primary mission of schools should be to promote students' ethical reasoning. According to this view, a fundamental mission of schools is to act as the conscience of the polity. By distinguishing their goals from those of the nation-state, schools should be able to develop curricula that give students the academic background and the personal entitlement to offer meaningful critique of the institutions of modern life.

Not only is this mission an important precursor of social change, it is also an important safeguard of such change (see e.g., Brym, 1980). Any society--regardless of the tenets on which it is founded--can lose sight of its most worthy aims. A citizenry capable of ethical reasoning, however, can evaluate and redirect its government.

Moreover, citizens are entitled to a government that advances their human rights, including the right to political voice and to self-directed work. As Bell (1976) notes, the evolution of human rights has not been well attended to in modern capitalist societies. Advancing such rights is possible only within a society that places as great a value on the welfare of groups as it does on the accomplishments of individuals. Consequently, the schools in such a society should cultivate among students an appreciation for the

scope and limitations of individual potential as well as an appreciation for the potential of humankind.

These two aims are not incompatible, although much of current educational thought makes them out to be (see e.g., Grant & Sleeter, 1985; Tannenbaum, 1981). Their apparent conflict, however, can be resolved by dislodging the concept of individual potential from its moorings in an ethic of competition. Schools can establish a frame of reference that enables students to see that their accomplishments are more than personal triumphs over other students. This altered frame of reference would demonstrate to students the preeminence of activities directed toward the survival and betterment of the human species and of the planet.

This frame of reference would also support the second premise on which we believe that schooling should rest. This premise defines a just political mission for education, namely, that schooling should function as the harbinger of democracy. Schools must accept this mission if they are to have a meaningful role in changing how social relations are structured. Currently, students have few models to guide their thoughtful but active participation in the political process. The trappings of a representative democracy within a nearly monopolistic capitalism offer little to convince students of the value of participation. Moreover, representative democracy (as we know it) most often substitutes advertising for debate.

Students educated to interpret their surroundings would be better able to identify the limitations of whatever political

formations prevail. Students also need to be prepared to serve as actors within a less contrived and more substantive political arena. In order to assume such a role, they need to understand the assumptions as well as the processes of democratic governance. To promote such understanding, curriculum must offer students a forum for discussing political ideas as well as meaningful avenues to address political and economic issues in their communities. These avenues, however, would differ from the channels progressive schools habitually use for cultivating students' democratic sentiments. Rather than construct for students an artificial political microcosm (such as that implied by the term, "student government"), schools should involve students in the real events of the political economy that take place within their communities.

Such activities form part of a larger project, which involves, in our view, the most substantive role that schools should undertake. Our third premise is that this project--encompassing schools' aesthetic mission--is of primary importance. Applying the term "aesthetic" to all <u>representations</u> of human experience and objective reality, this premise reflects our belief that human knowledge and understanding are justified in their own right, without reference to their immediate utility. Representations of experience and reality--in the arts and sciences--form, we believe, a legacy that allows humans to address the enduring predicaments of existence.

An aesthetic mission requires schools to provide all that is necessary to prepare students to construct personal interpretations

of the world. By examining, reflecting on, and reconceiving others' interpretations of the world, students become able to internalize--as well as to assert--their own interpretations. These interpretations not only become the foundation for students' definitions of themselves, they will inevitably serve as the bases for students' ethical judgments and political actions.

The aesthetic mission of schools is most similar, on the surface, to what schools currently do. They present a body of knowledge that seems to represent the most significant elements of the cultural tradition. Regardless of appearances, however, this body of knowledge is offered only as the cursory treatment of content (e.g., Hirsch, 1987). Viewed this way, knowledge is treated superficially, reduced to unrelated bits of information, and trivialized. Curriculum of this sort uses a set of facts to distinguish those who master an approved canon from those who don't. Such a curriculum, however, certainly fails to encourage students to explore the personal and universal import of a body of knowledge.

By contrast, we believe that the aesthetic mission of schools requires the selection of some body of knowledge for students to use as the beginning point of their intellectual exploration. This knowledge needs to be of the sort that expands rather than limits students' choices.

Such knowledge is easier to characterize when it helps students develop a fundamental method of inquiry or expression. For example, the knowledge about how to read makes available to students a wide range of intellectual choices. It is more difficult to specify,

however, the most important knowledge within disciplines such as literature and history that are essentially discursive.

Students certainly need to read enough history to understand and even to participate in its method, but we are not clear how much or what kind of history will accomplish that aim. Issues such as this are basic to the development of curriculum, and should, therefore, be addressed by teachers and to a lesser extent by members of the community that a school serves. To engage in such work, however, teachers will need to value intellect more than they currently do. They will need to have exposure to the broad body of knowledge from which a curriculum might be drawn. Moreover, they must be willing to submit such curriculum to a process of continual critique. Only through this critique will schools be able to provide a curriculum that gives students access to the assumptions on which their cultures rest and, at the same time, shows them how to challenge or elaborate those assumptions.

Construction of the Curriculum

If schools are to serve these ethical, political, and aesthetic ends, their curricula must change. But how should curricula change? Observers--both liberal and radical--who conclude that the public-school curriculum as presently constituted limits students' academic achievement have recommended curricula that include various bodies of knowledge.

Liberal observers generally recommend the traditional canon of western thought as important for all students, regardless of social

class or aptitude. The Paideia Proposal (Adler, 1982), for example, advocates a basic liberal arts education for all students.

Radical critics, by contrast, usually propose curricula that replace the established curriculum with non-traditional content (i.e., an anti-canon) relevant to the history, culture, and liberation of oppressed groups. In consequence, radical critiques often find the classical canon to be little better than the basic skills curriculum that most contemporary schools implement (Weiler, 1988). According to Giroux (1988), schools that confine education to "high-status" (p. 194) knowledge serve the interests of the ruling elite; making the traditional canon available to all students does little to advance the human rights of oppressed groups.

We take a view that differs from both liberal and radical perspectives. This view proceeds from points already made. If the construction of curriculum is a critical task for educators and community members, and if schools are to be harbingers of democracy, then educators--whether liberal or radical--ought not to espouse a single curriculum for all students. Children grow up in particular surroundings, and educators must construct curricula that respond to those particularities.

At the same time, children ought, we believe, to grow up into a wider world--at least intellectually wider--than the one into which they are born. One aspect of this process is developmental; that is, students' minds mature with age. Educators should nurture that development so that students grow into adults who can grasp, use, revise, and invent ideas. Another aspect of this process, however,

is circumstantial. In this aspect, educators select content that leads students to bridge the gap between the particulars of their existence and the universal dimensions of human existence. Educators, however, cannot undertake these roles unless their own intellects guide the construction of curriculum.

Unfortunately, this role for intellect is seldom realized in contemporary public school classrooms. As a result, students generally imagine for themselves selfish ends in worlds that resemble the narrow ones they inhabit in reality. That is, they imagine themselves as being incrementally more successful than their parents. One casualty of the failure of intellect in classrooms may be social mobility of a more significant sort. An even more important casualty, we would argue, is intellectual mobility; the disposition to imagine and act upon other realities than those that are merely apparent.

In fact, both the canon and the anti-canon seem equally important to us. Ideally, all students would learn that the world differs radically from the one they think they see just over the sills of the classroom windows, the one they know so well. In constructing curriculum, however, wise educators bind themselves to their students' origins, that is, to where their students are coming from. By examining and building on the meanings that seem familiar, students learn that the world they think they know so well--their immediate world--differs somewhat from their image of it.

For example, developing family chronicles and oral histories of various groups and cultures helps students realize the limits and

expand their conception of apparent reality. Such openings exist in all disciplines, sometimes because of students' misconceptions, but sometimes because of the unexplored richness of their personal experiences. The point is that instruction must regularly exploit such openings so that students can begin to construct bridges between the narrow worlds that seem so familiar and the wider ones that seem so foreign.

The content of the curriculum, however, is not immaterial. Any curriculum must have substance. The idea that instruction should impart intellectual processes rather than intellectual content is misguided, unless it acknowledges that dealing with important knowledge is the way humans think. Educators are often tempted into believing that thought processes exist somehow apart from content. This is simply not true, and thinking cannot be taught apart from something worthy about which to think.

References

Adler, M. (1982). The Paideia proposal. New York: Collier Macmillan.

Althauser, R.P., Spivack, S.S., & Amsel, B.M. (1975). The unequal elites. New York: John Wiley & Sons.

Apple, M.W. (1979). Ideology and curriculum. London: Routledge & Kegan Paul.

Apple, M.W. (1982). Education and cultural reproduction: A critical reassessment of programs for choice. In R. Everhart (Ed.), The public school monopoly: A critical analysis of education and the state in American society (pp.503-541). Cambridge, MA: Ballinger.

Apple, M.W. (1987). The de-skilling of teachers. In F.S. Bolin & J. M. Falk (Eds.), Teacher renewal: Professional issues, personal choices (pp. 59-75). New York: Teachers College Press.

Aronowitz, S., & Giroux, H. (1985). Education under seige: The conservative,liberal, and radical debate over schooling. South Hadley, MA: Bergin & Garvey.

Barrett, M.J. (1990). The case for more school days. The Atlantic Monthly, 266 (5), 78-81, 84, 86-87,90-91,94,96,97-98,100,104,106.

Bell, D. (1973). The coming of post-industrial society. New York: Basic Books.

Bell, D. (1976). The cultural contradictions of capitalism. New York: Basic Books.

Boli, J., Ramirez, F., & Meyer, J. (1985). Explaining the origins and expansion of mass education. Comparative Education Review, 29 (2), 145-170.

Bordieu, P., & Passeron, J.C. (1977). Reproduction in education, society, and culture. Beverly Hills, CA: Sage.

Bordieu, P., & Passeron, J.C. (1979). Symbolic violence. Critique of anthropology, 4, (13, 14).

Bowles, S. (1980). Unequal education and the reproduction of the social division of labor. In E. Steiner, R. Arnove, & B.E. McClellan (Eds.), Education and American culture (pp. 125-133). New York: Macmillan.

Bowles, S., & Gintis, H. (1973). IQ in the U.S. class structure. Social Policy, Nov.-Dec. 1972/Jan.-Feb. 1973, 65-96.

Bowles, S., & Gintis, H. (1976). Schooling in capitalist America. New York: Basic Books.

Brym, R. (1980). Intellectuals and politics. London: George Allen & Unwin.

Cogan, J.J., & Anderson, H. (1977). Teachers' professional reading habits. Language Arts, 54, 254-258.

Coleman, J. (1961). The adolescent society. Glencoe, NY: Free Press.

Committee for Economic Development. (1985). Investing in our children: Business and the public schools. (ERIC Document Reproduction Service No. ED 261 117)

Deaton, B., & McNamara, K. (1984). Education in a changing rural environment: The impact of population and economic change on the demand for and costs of public education in rural America. Mississippi State, MS: Southern Rural Development Center. (ERIC Document Reproduction Service No. ED 241 210)

DeYoung, A. (1989). Economics and American education: A historical and critical overview of the impact of economic theories on schooling the United States. New York: Longman.

Dormhoff, G.W. (1983). Who rules America now? A view for the eighties. Englewood Cliffs, NJ: Prentice-Hall.

Duffey, R.V. (1973). Teacher as reader. The Reading Teacher, 27, 132-133.

Duffey, R.V. (1974, October-November). Elementary school teachers' reading. Paper presented at the Annual Meeting of the College Reading Association, Bethesda, MD. (ERIC Document Reproduction Service No. ED 098 554)

Etzioni, A. (1961). A comparative analysis of complex organizations. New York: Free Press.

Etzioni, A. (1985). Self-discipline, schools, and the business community. Washington, DC: Chamber of Commerce of the United States. (ERIC Document Reproduction Service No. ED 249 335)

Feldman, D. (1979). The mysterious case of extreme giftedness. In A. Passow (Ed.), The gifted and the talented: Their education and development (Seventy-Eighth Yearbook of the

National Society for the Study of Education, Part II) (pp. 335-351). Chicago: University of Chicago Press.

Feldman, D. (1984). A follow-up of subjects scoring above 180 in Terman's Genetic Studies of Genius. Exceptional Children, 50 (6), 107-114.

Fetterman, D.M. (1988). Excellence and equality: A qualitatively different perspective on gifted and talented education. Albany, NY: State University of New York Press.

Foucault, M. (1979). Discipline and punish: The birth of the prison (A. Sheridan, trans.). New York: Vintage. (Original work published 1975)

Freire, P., & Macedo, D. (1987). Literacy: Reading the word and the world. South Hadley, MA: Bergin & Garvey.

Galambos, E.C., Cornett, L.M., & Spitler, H.D. (1985). An analysis of transcripts of teachers and arts and sciences graduates. Atlanta, GA: Southern Regional Education Board.

Garman, N. (1986, March). Leadership and the educative act: Looking toward the next century to ensure quality. The John Dewey Society Memorial Lecture presented at the Annual Conference of the Association for Supervision and Curriculum Development, San Francisco, CA. (ERIC Document Reproduction Service No. ED 270 857)

Giroux, H. (1988). Teachers as intellectuals: Toward a critical pedagogy of learning. Granby, MA: Bergin and Garvey.

Glickman, C.D. (1990). Supervision of instruction: A developmental approach (2nd ed.). Boston: Allyn & Bacon.

Good, T., & Brophy, J. (1987). Looking in classrooms (4th ed.). New York: Harper & Row.

Gordon, W.J. (1961). Synectics: The development of creative capacity. New York: Harper & Row.

Grant, C.A., & Sleeter, C.E. (1985). Equality, equity, and excellence: A critique. In P.G. Altbach, G.P. Kelly, & L. Weis (Eds.), Excellence in education: Perpectives on policy and practice (pp. 139-159). Buffalo, NY: Prometheus Books.Grant & Sleeter, 1985

High, M.H., & Udall, A.J. (1983). Teacher ratings of students in relation to ethnicity of students and school ethnic balance. Journal for the Education of the Gifted, 6 (3), 154-166.

Hobsbawm, E.J. (1973). Revolutionaries. New York: Pantheon Books.

Hofstadter, R. (1963). Anti-intellectualism in American life. New York: Knopf.

Howley, C. (1991). Economics and education: Instrumentalism and the dilemma of learning in rural areas. In A. DeYoung (Ed.)., Rural education: A resourcebook (Chapter 3). New York: Garland.

Ilika, J. (1974, May). A critical review of the teacher readership characteristics research and the implications for performance based teaching. Paper presented at the Annual Meeting of the International Reading Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED 092 912)

Jacobs, J. (1984). Cities and the wealth of nations: Principles of economic life. New York: Random House.

Jencks, C., Smith, M., Acland, H., Bane, M., Cohen, D., Gintis, H., Heyns, B., & Michelson, S. (1972). Inequality: A reassessment of the effect of family and schooling in America. New York: Harper & Row.

Johansen, B.E. (1989). William James Sidis' Tribest and States, an unpublished exploration of Native American contributions to democracy. Northeast Indian Quarterly, Fall, 24-29.

Katchadourian, H., & Boli, J. (1985). Careerism and intellectualism among college students. San Francisco: Jossey-Bass.

Koballa, T.R. (1987). The professional reading patterns of Texas life science teachers. School Science and Mathematics, 87 (2), 118-124.

Kulik, J., & Kulik, C. (1984). Effects of accelerated instruction on children. Review of Educational Research, 54(3), 409-425.

Leontief, W. (1982). The distribution of work and income. Scientific American, 247 (3), 188-204.

Meyer, J., Tyack, D., Nagel, J., & Gordon, A. (1979). Public education as nation building in America: Enrollments and bureaucratization in the American states,1870-1930. American Journal of Sociology, 85 (3), 591-613.

Mills, C.W. (1956). The power elite. New York: Oxford

University Press.

Oakes, J. (1985). Keeping track: How schools structure inequality. New Haven, CT: Yale University Press.

Olneck, M., & Crouse, J. (1979). The IQ meritocracy reconsidered. American Journal of Education, 88(1), 1-31.

Osborn, A.F. (1963). Applied imagination (3rd ed.). New York: Scribner's.

Pendarvis, E., Howley, A., & Howley. (1990). The abilities of gifted children. Englewood Cliffs, NJ: Prentice-Hall.

Perelman, L. (1990). The "acanemia" deception: How the myth that America "lags"in education spending threatens to undermine national competitiveness (Hudson Institute Briefing Paper). Indianapolis, IN: Herman Kahn Center.

Roe, A. (1956). The psychology of occupations. New York: Wiley.

Schlechty, P.C., & Vance, V.S. (1981). Do academically able teachers leave education? The North Carolina case. Phi Delta Kappan, 63, 106-112.

Spring, J. (1976). The sorting machine: National educational policy since 1945. New York: Longman.

Spring, J. (1987) Education and the Sony war. In J.W. Noll (Ed.), Taking sides: Clashing views on controversial educational issues (4th ed.) (pp. 123-128). Guilford, CN: The Dushkin Publishing Group.

Suchman, R. (1975). A model for the analysis of inquiry. In W. Barbe & J. Renzulli, Psychology and education of the gifted (2nd ed.) (pp.336-345). New York: Irvington Publishers.

Tannenbaum, A. (1981). Pre-Sputnik to post-Watergate concern about the gifted. In W. Barbe & J. Renzulli (Eds.), Psychology and education of the gifted (3rd. ed.) (pp. 20-37). New York: Irvington Publisher.

Thurow, L. (1987). A surge in inequality. Scientific American, 256 (5), 30-37.

Tomaskovic-Devey, D. (1987). Labor markets, industrial structure, and poverty: A theoretical discussion and empirical example. Rural Sociology, 52 (1), 56-74.

Vance, V.S., & Schlechty, P.C. (1982). The distribution of academic ability in the teaching force: Policy

implications. Phi Delta Kappan, 64, 22-27.

Veblen, T. (1979). Theory of the leisure class. New York: Penguin. (Original work published 1899)

Vieth, M. (1981). Time teachers spend reading versus time they spend watching TV. Unpublished Master's thesis, Kean College of New Jersey. (ERIC Document Resource No. ED 200 922)

Waller, W. (1932). The sociology of teaching. New York: Wiley.

Weaver, W.T. (1978). Educators in supply and demand: Effects on quality. School Review, 86 (4), 522-593.

Weaver, W.T. (1979). In search of quality: The need for talent in teaching. Phi Delta Kappan, 61 (1), 29-33.

Weaver, W. (1983). America's teacher quality problem: Alternatives for reform. New York: Praeger.

Weiler, K. (1988). Women teaching for change. Granby, MA: Bergin and Garvey.

Wiener, N. (1950). The human uses of human beings: Cybernetics and society (rev. ed.). Boston: Houghton Mifflin.

Ysseldyke, J., & Algozzine, B. (1982). Bias among professionals who erroneously declare students eligible for special services. Journal of Experimental Education, 50(4), 223-228.